

FIG. -1-

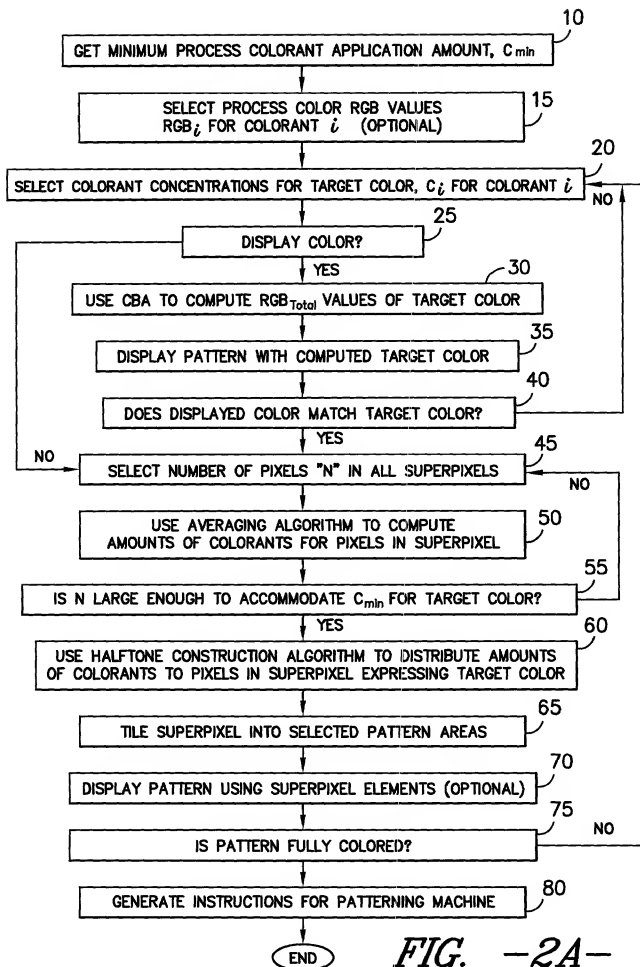


FIG. -2A-

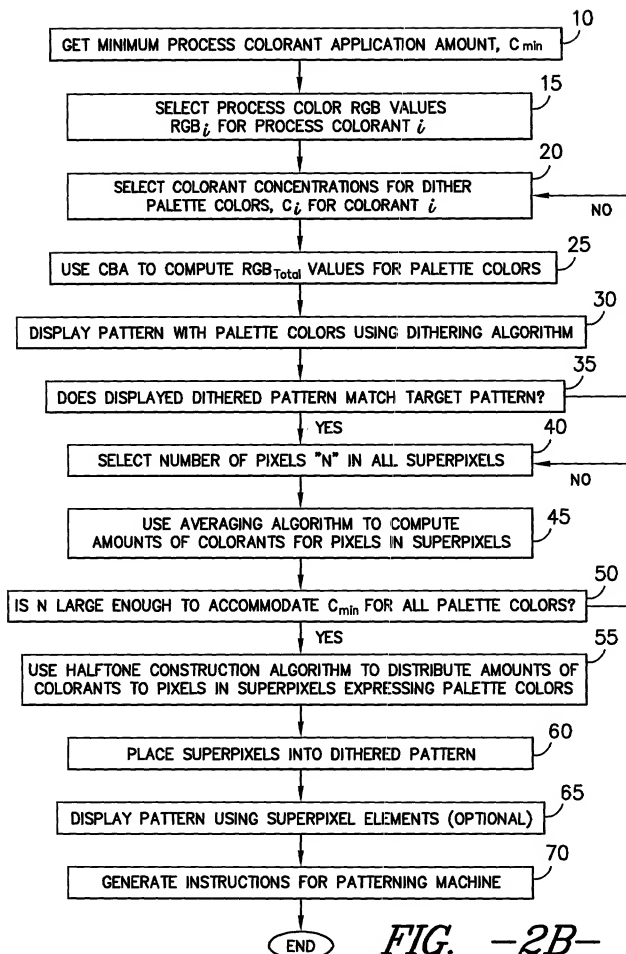


FIG. -2B-

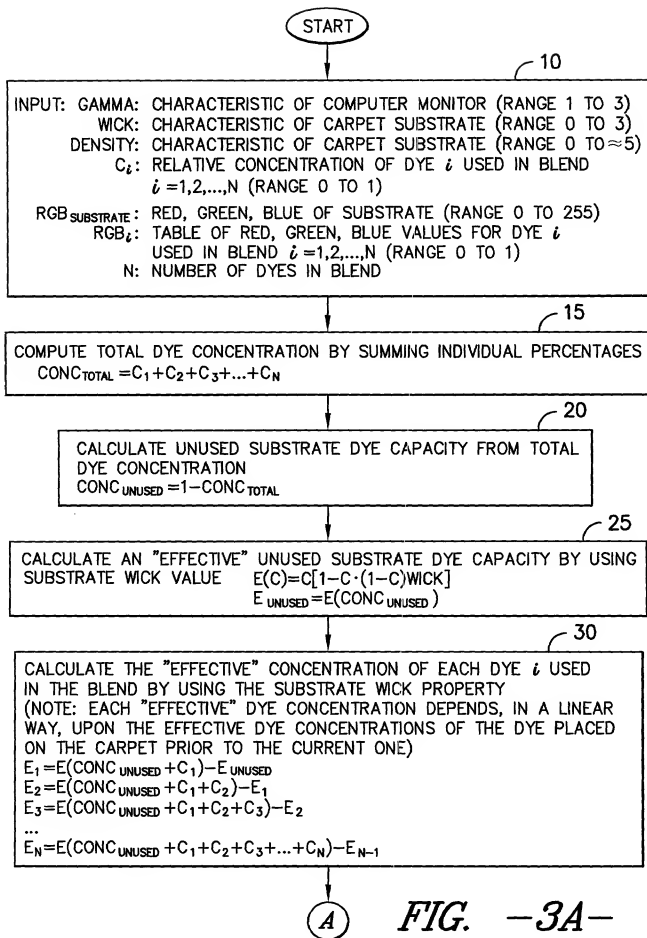


FIG. -3A-

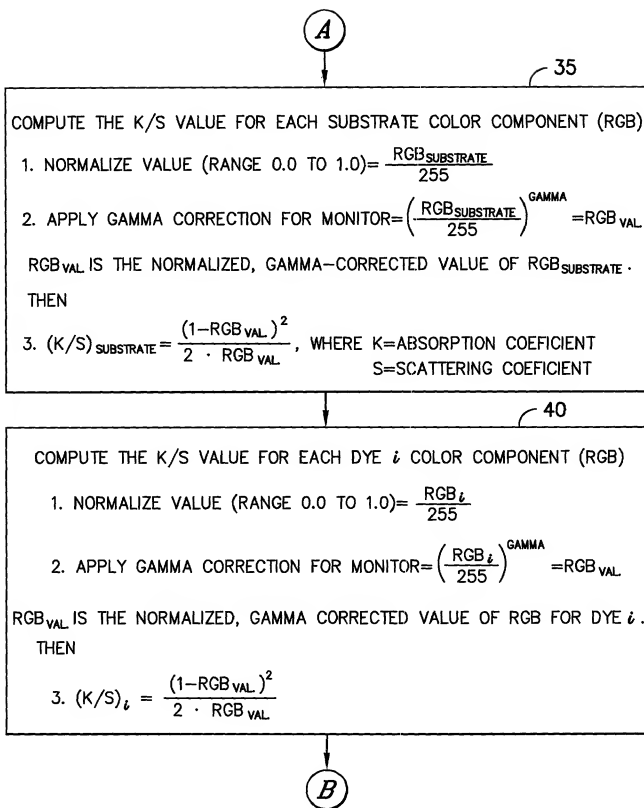
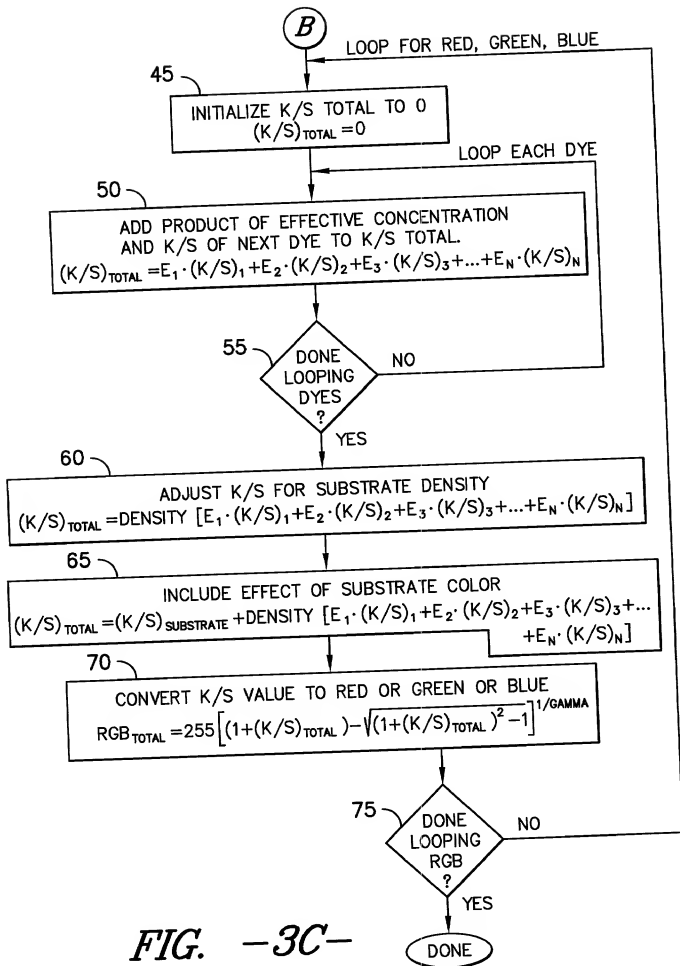


FIG. -3B-



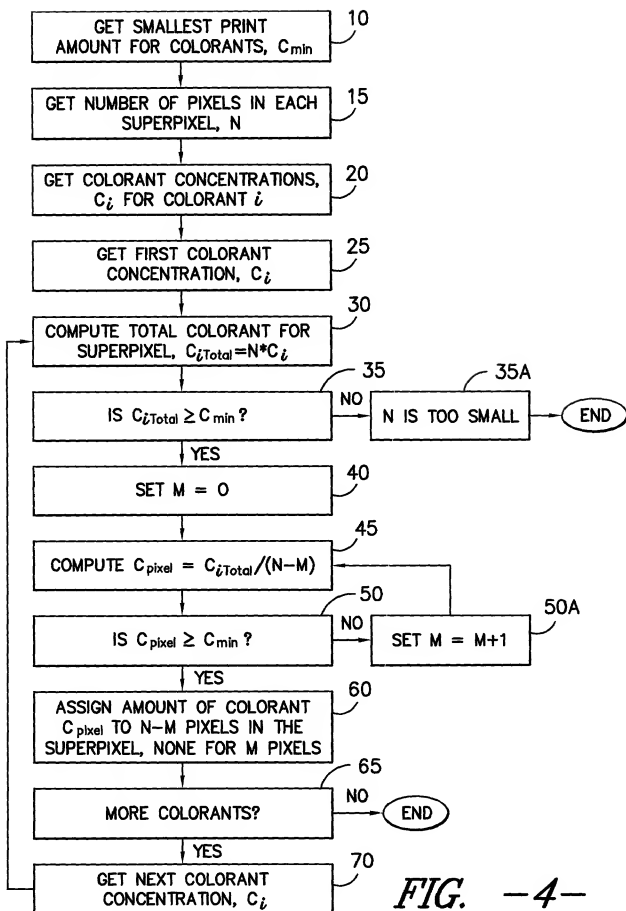


FIG. -4-

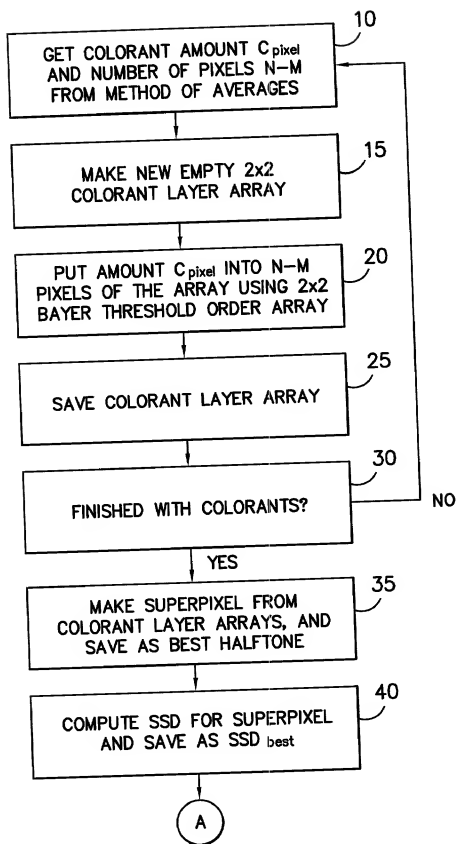


FIG. -5A-

0994729-08201
102280-624E660

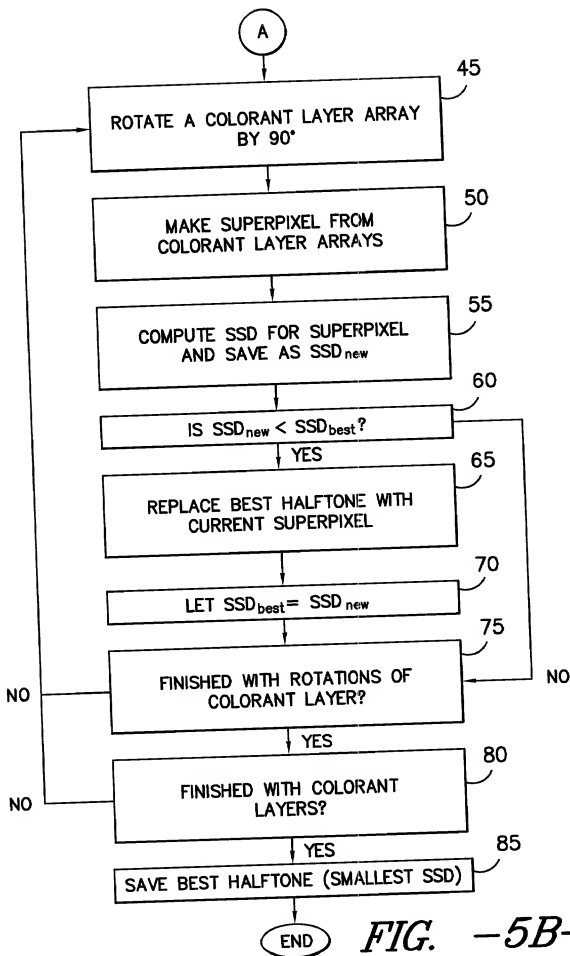


FIG. -5B-

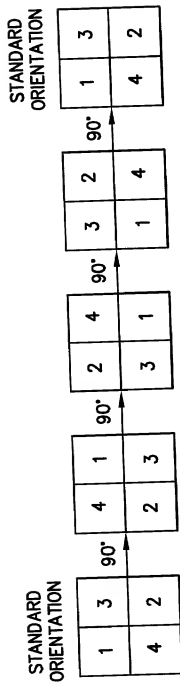


FIG. -6-

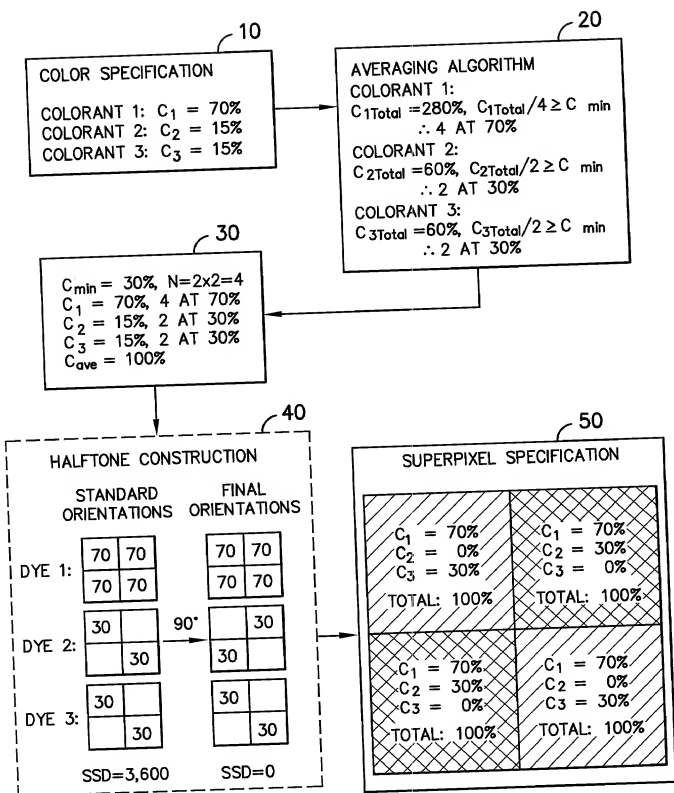


FIG. -7-

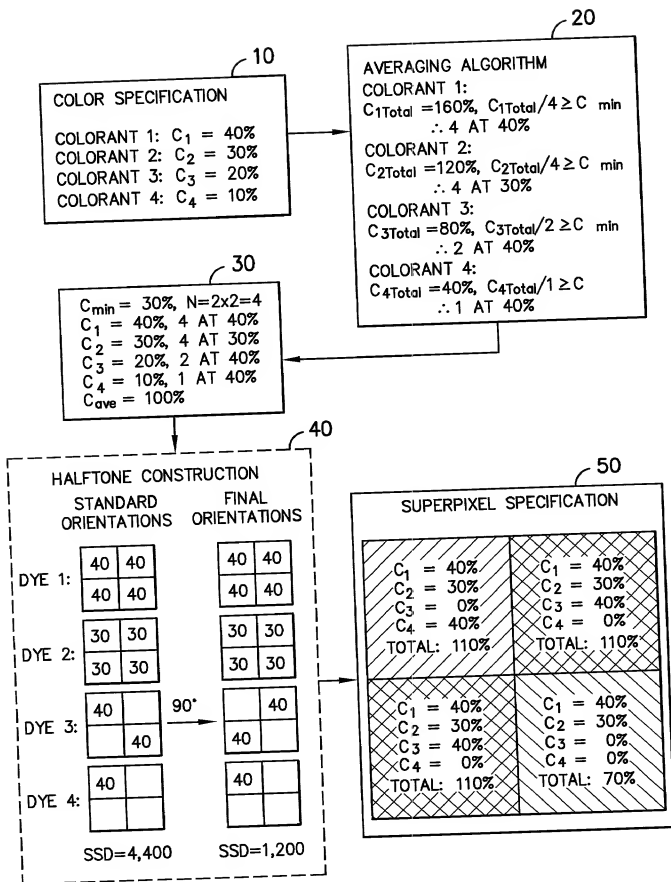


FIG. -8-

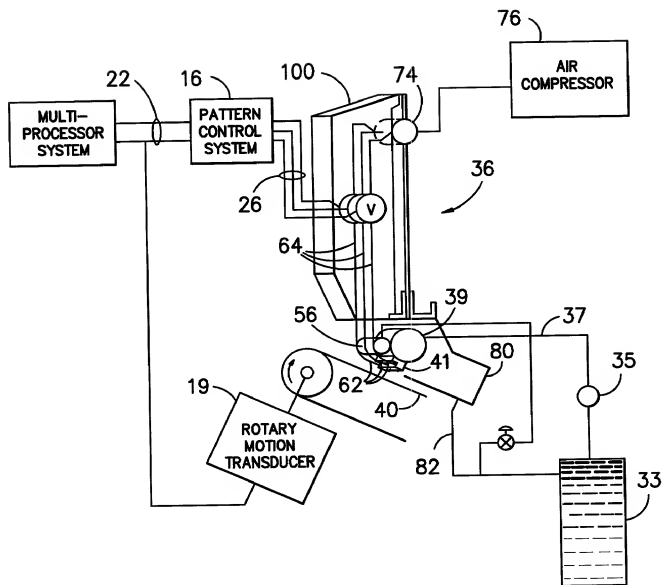


FIG. -9-

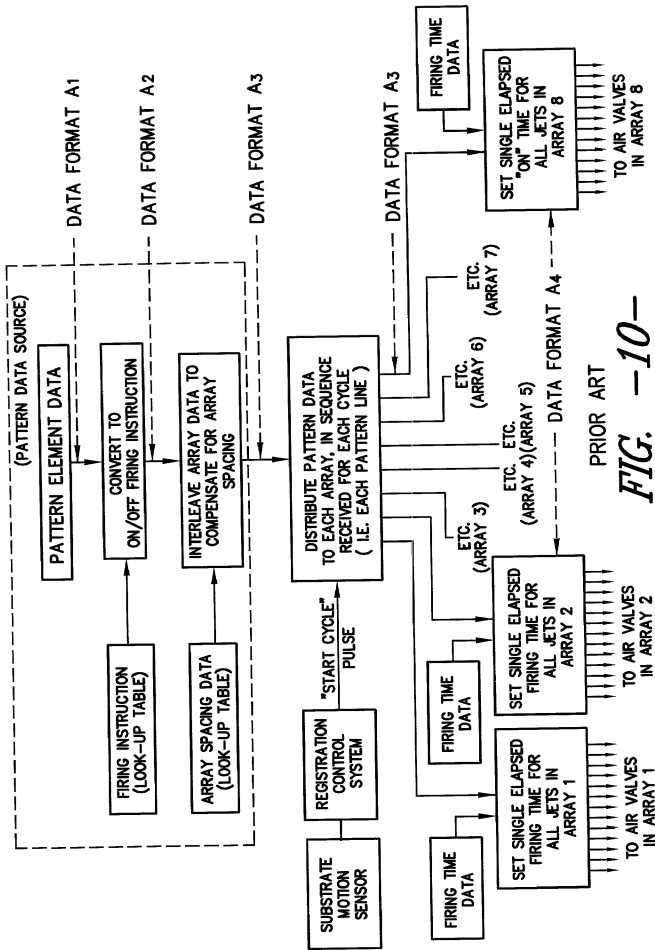
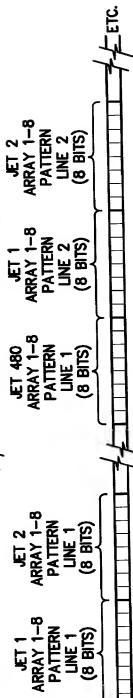


FIG. -10-

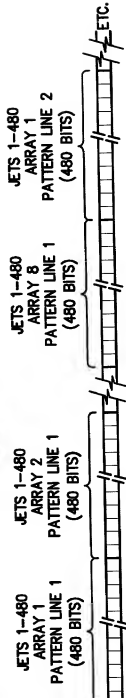
DATA FORMAT A1 :
4 BIT GROUP
DEFINES 1 OF 16 PRE-DEFINED
PATTERN ELEMENTS



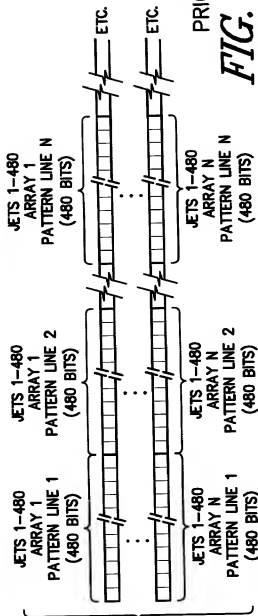
DATA FORMAT A2 :
EACH BIT INDICATES
"FIRE / NO FIRE"
FOR EACH JET ON
EACH ARRAY



DATA FORMAT A3 :
(EACH BIT INDICATES
"FIRE / NO FIRE" FOR EACH JET;
FIRING TIME TO BE PRESET)



DATA FORMAT A4 :
(EACH BIT INDICATES
"FIRE / NO FIRE" FOR EACH JET;
FIRING TIME IS PRESET)



PRIOR ART

FIG. -11-

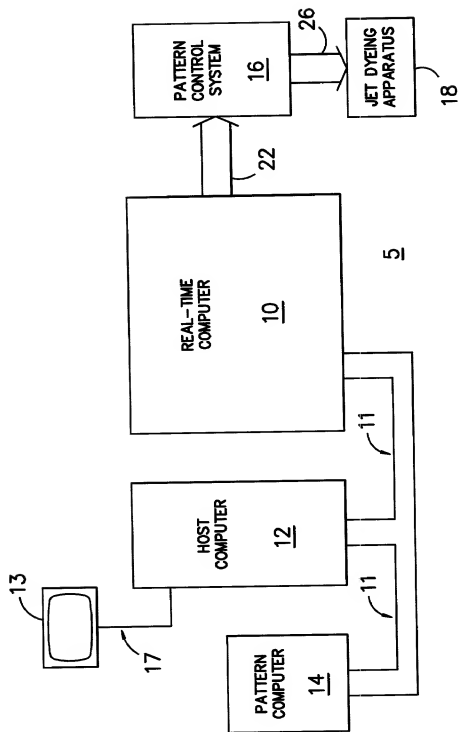


FIG. -12-


```

graph TD
    42([START]) --> 44[GET RUN LIST ENTRY]
    44 --> 46{IS ENTRY A BASE ENTRY ?}
    46 -- YES --> 48[GET FIRING TIME FROM BASE FILE]
    48 --> 50[GENERATE TABLE OF FIRING TIMES FOR EACH COLOR BAR]
    50 --> 44
    46 -- NO --> 52{IS ENTRY A COLOR ENTRY ?}
    52 -- YES --> 54[GET COLOR LOADING FROM RUN LIST]
    54 --> 56[GENERATE TABLE OF MACHINE COLORS FOR COLOR BARS]
    56 --> 44
    52 -- NO --> 58{IS ENTRY AN SKU ENTRY ?}
    58 -- YES --> 60[GET DATA FROM SKU FILE]
    60 --> 62[GENERATE PATTERN COLOR TABLE]
    62 --> A((A))
    58 -- NO --> 44

```

FIG. -13

FIG. -13-

```

graph TD
    A((A)) --> 66[GENERATE LOOK UP TABLE FOR PATTERN]
    66 --> 68[GET PIXEL CODE FROM PATTERN COLOR TABLE]
    68 --> 70[USING CODE GET NEXT COLOR AND PERCENT OF COLOR FROM PATTERN COLOR TABLE]
    70 --> 72[USING COLOR GET COLOR BAR FROM MACHINE COLOR TABLE]
    72 --> 78[USING COLOR BAR GET FIRING TIME FROM FIRING TIME TABLE]
    78 --> 84[MULTIPLY PERCENT OF COLOR AND FIRING TIME TO GET MODIFIED FIRING TIME]
    84 --> 86[STORE MODIFIED FIRING TIME IN LUT FOR GIVEN PIXEL CODE AND COLOR BAR]
    86 --> 88{HAVE ALL COLORS FOR THIS PIXEL CODE BEEN FOUND ?}
    88 -- NO --> 68
    88 -- YES --> 90{HAVE ALL CODES BEEN LOADED INTO LUT ?}
    90 -- YES --> 92[SEND LUT TO MACHINE]
    92 --> 94([END])
    90 -- NO --> A
  
```

FIG. 1

FIG. -14-

BASE WXYZ		MACHINE CONFIG.		SKU ABC	
BAR	FT	COLOR	BAR	CODE	COLOR
1	10	RED	1	A	RED
2	10	BLUE	2	B	BLUE
3	20	GREEN	3		
4	15	YELLOW	4		

FIG. -15A- FIG. -15B- FIG. -15C-

BASE WXYZ		MACHINE CONFIG.		SKU ADE	
BAR	FT	COLOR	BAR	CODE	COLOR
1	10	RED	1	A	50% RED, 50% BLUE
2	10	BLUE	2	C	GREEN
3	20	GREEN	3		
4	15	YELLOW	4		

FIG. -16A- FIG. -16B- FIG. -16C-

		LUT'S			
		1	2	3	4
C O D E S	A	10MS	0	0	0
	B	0	10MS	0	0

FIG. -15D-

		LUT'S			
		1	2	3	4
C O D E S	A	5MS	5MS	0	0
	C	0	0	20MS	0

FIG. -16D-

		LUT'S			
		1	2	3	4
C O D E S	A	0	0	20MS	0
	B	0	10MS	0	0
	C	5MS	2.5MS	0	3.75MS

FIG. -16E-

		LUT'S				
		1	2	3	4	5
C O D E S	A	0	0	0	0	10MS
	B	0	10MS	0	0	0

FIG. -16F-

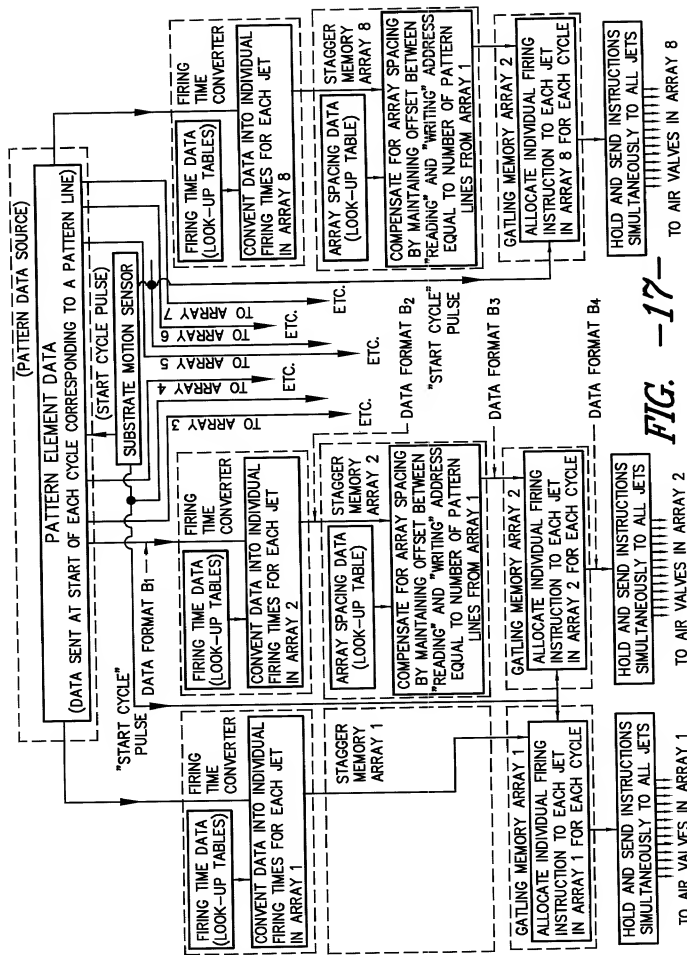
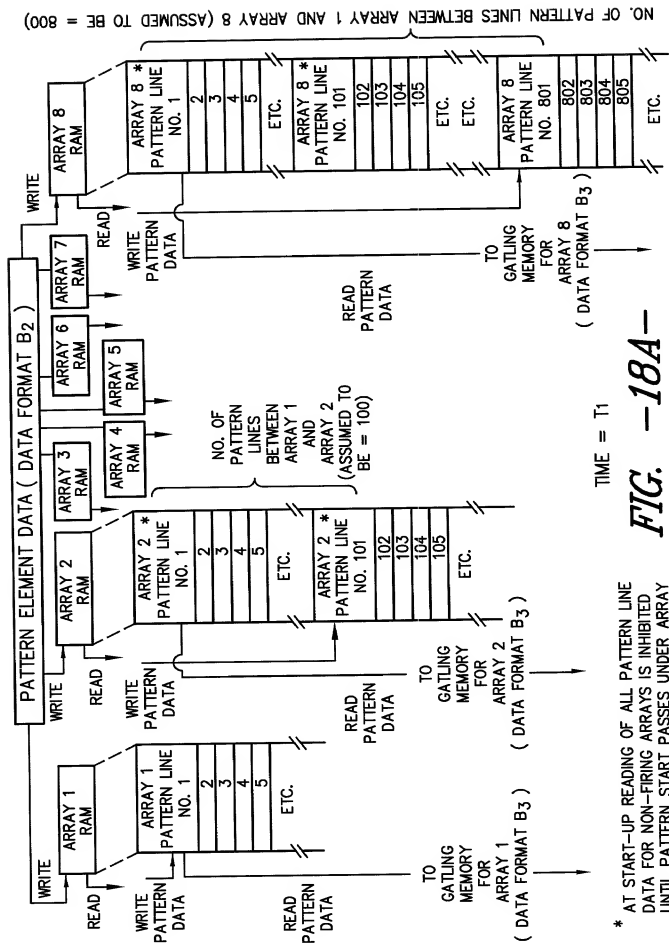


FIG. -17-

TO AIR VALVES IN ARRAY 2

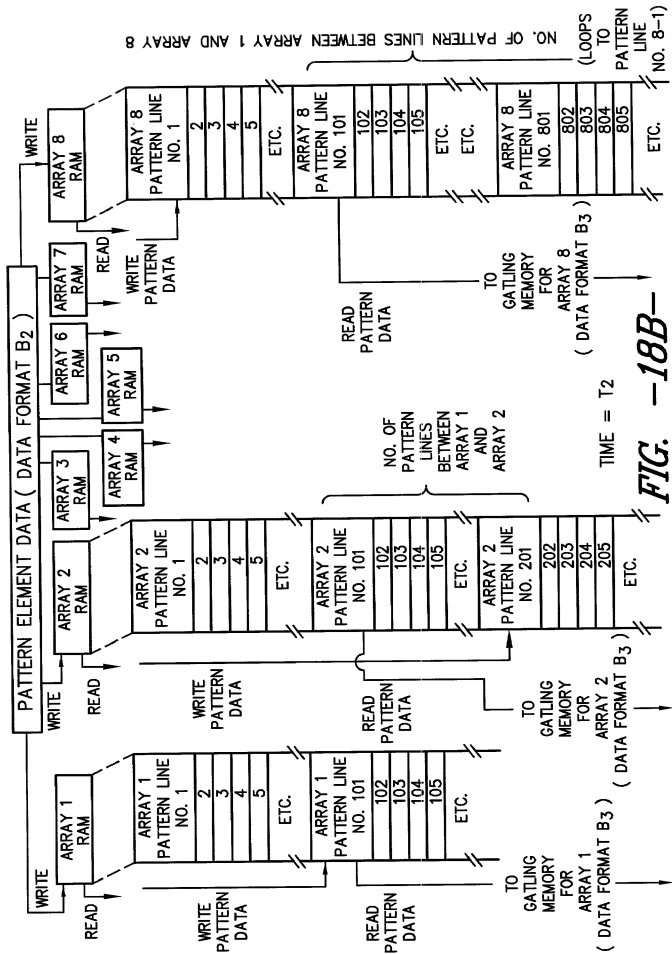
TO AIR VALVES IN ARRAY 1

TO AIR VALVES IN ARRAY 8



* AT START-UP READING OF ALL PATTERN LINE DATA FOR NON-FIRING ARRAYS IS INHIBITED UNTIL PATTERN START PASSES UNDER ARRAY

FIG. -18A-



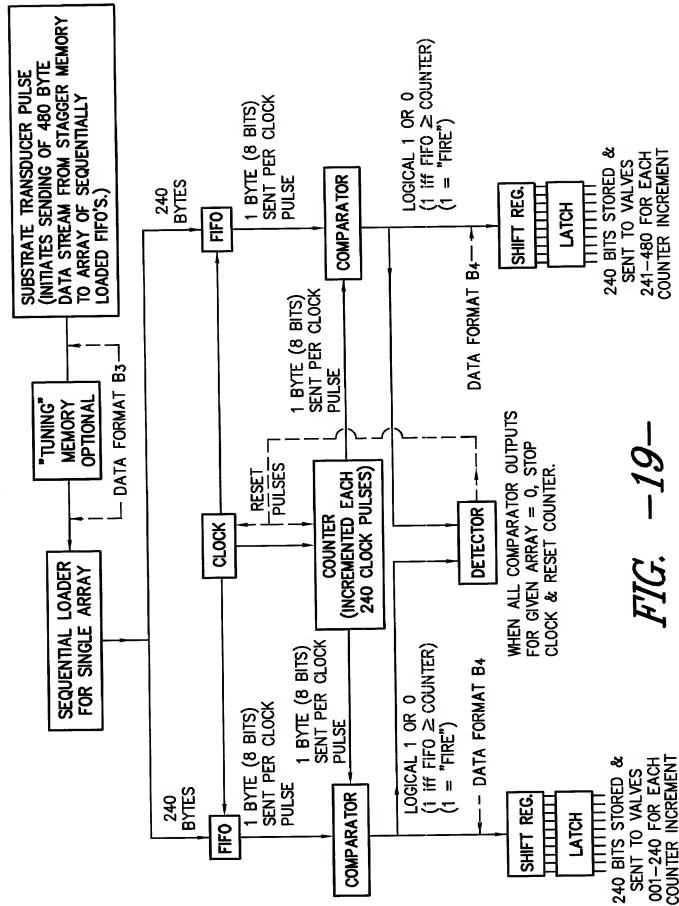
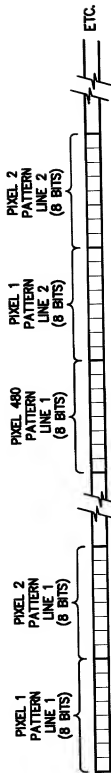


FIG. -19-

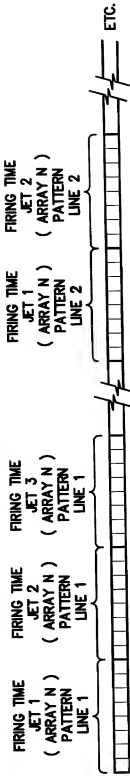
DATA FORMAT B1 :

(OUTPUT FROM PATTERN
DATA SOURCE)
8 BIT GROUP
DEFINES 1 OF 256
PRE-DEFINED
PATTERN ELEMENTS



DATA FORMAT B2 :

(OUTPUT FROM PATTERN
DATA SOURCE)
EACH 8 BIT GROUP
DEFINES 1 OF 256
POSSIBLE FIRING TIMES



DATA FORMAT SAME AS B2

DATA FORMAT B3 :
(OUTPUT FROM STAGGER MEMORY)
DATA HAS BEEN RESEQUENCED/DELAYED
TO ACCOMMODATE INTER-ARRAY SPACING

DATA FORMAT B4 :

(OUTPUT FROM PATTERN
DATA SOURCE)
EACH BIT INDICATES
"FIRE" / NO FIRE"
COMMAND FOR
GIVEN ARRAY

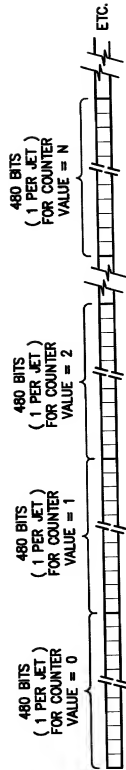


FIG. -20-

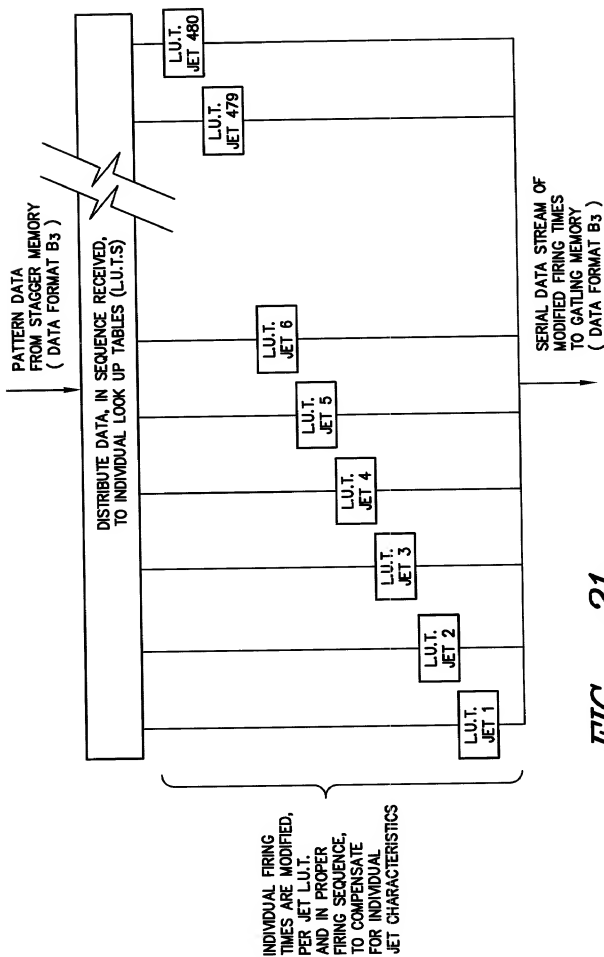


FIG. -21-